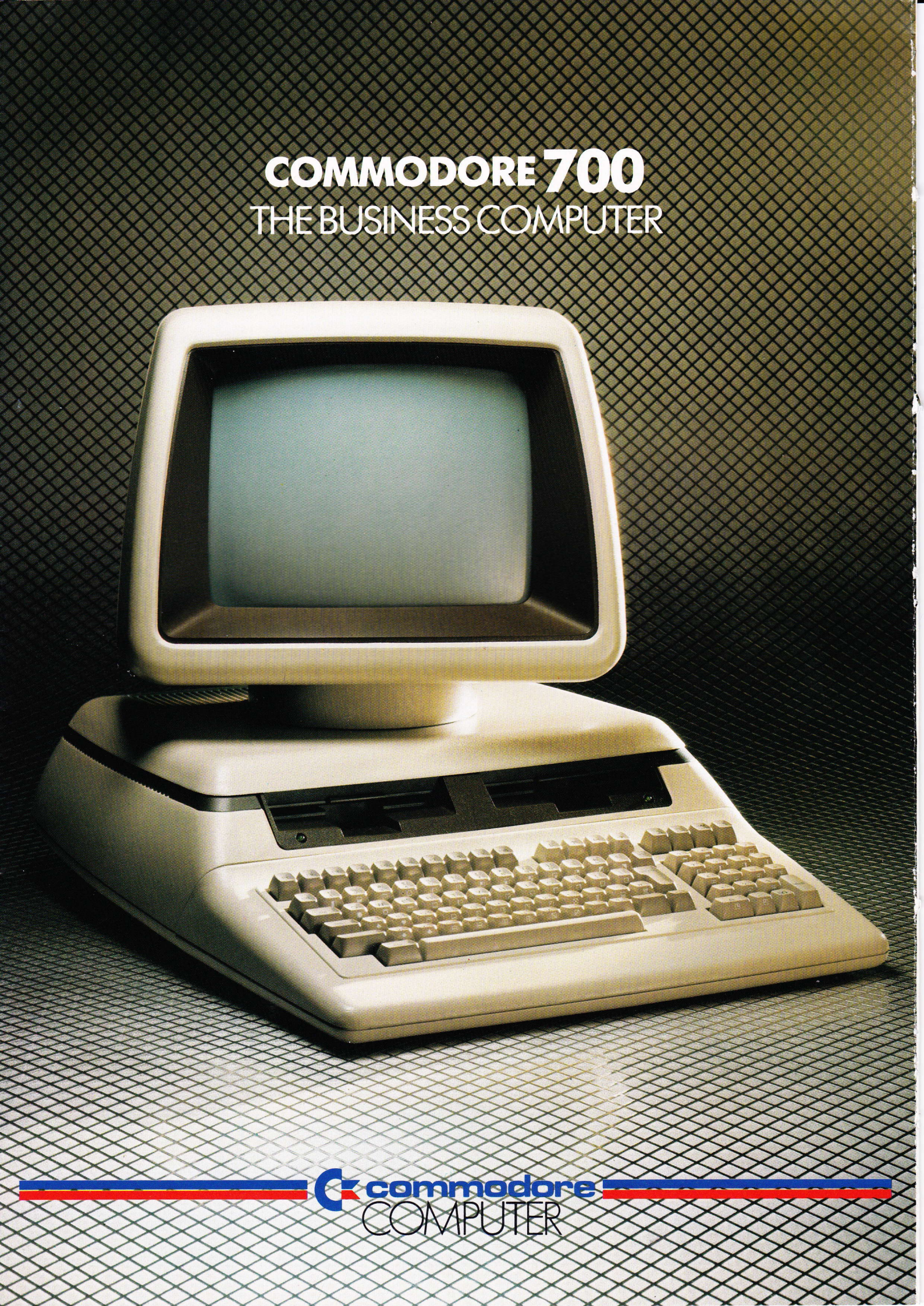
# COMMODORE 700

## THE BUSINESS COMPUTER



commodore COMPUTER

# THE COMMODORE 700 SERIES... CHANGING BUSINESS FOR THE BETTER

**The 700 series is Commodore's handsome new computer for business use.** Designed with the user in mind, it incorporates high technology with modern styling. The 700 has a detached keyboard that has been engineered for improved accuracy and speed. Its optional integral monitor can be tilted and swivelled for the optimum viewing angle. The screen surface is antiglare and the easy-to-read characters have long retentivity to minimise eye strain.

## THE COMMODORE 700 IN YOUR BUSINESS

Although the Commodore 700 series computer offers outstanding hardware features, its true value lies in the tasks it can perform to help your business be more efficient and cost effective. The range of applications for the Commodore 700 series is extensive. They have been developed by people who are not just computer specialists but are experts in the field of that particular application, and the applications have become more 'sophisticated' with Commodore. Many were first developed for earlier models of Commodore computers and have been significantly expanded and enhanced to take advantage of the advanced features of the 700 series. These improvements were based on the experience gained by actual use in businesses throughout the world. The scope and variety of these applications is extensive. They include software programs to assist with functions which are fundamental to the operation of every business, as well as programs related to specific businesses and occupations.

## INFORMATION MANAGEMENT

Every organistion whether involved in business or social activities requires records to be kept and accessed. In the past this meant searching through mountains of paper for a single statistic. Now, with the Commodore 700 series, computerised record keeping is no longer costly. With the large memory capacity of the 700 series, all your information can be stored and located when needed at great speed. Records can be sorted into a specified order and groups of records meeting certain criteria can be rapidly found by the 700. Revisions and updates are easily done and there are useful functions for report generation. Arithmetic functions are built-in. Information handling packages on the 700 series computer allow you to design record formats to suit your requirements. The stored information can be linked to a word processing package so that standard letters to customers, clients, suppliers and patients can be personalized. Any business or profession can benefit from a Commodore 700 with an information management program. Personnel Managers keeping personnel records, doctors and dentists with patient records, sales managers keeping sales histories, estate agents for property details; these are just some examples of applications for information management on the 700 series.

## WORD PROCESSING

Written communication is essential to any organisation. Several sophisticated word processing packages are available for the Commodore 700 series microcomputers. Time consuming re-typing is eliminated as words, phrases and paragraphs can be simply changed or inserted with a word processing package on the Commodore 700 series. There is no need to type identical letters over and over to send several clients personalized copies. Type the letter once, store it, then names and addresses can be inserted from another file as the letters are printed. Better quality documentation can be produced in far less time than before. Any business will benefit from better presented and more speedily produced letters and documents. In some occupations the very nature of the work is word intensive. Authors, reporters, solicitors and copy-writers will find a Commodore word processing system a sound investment.

# APPLICATIONS AND OPTIONS

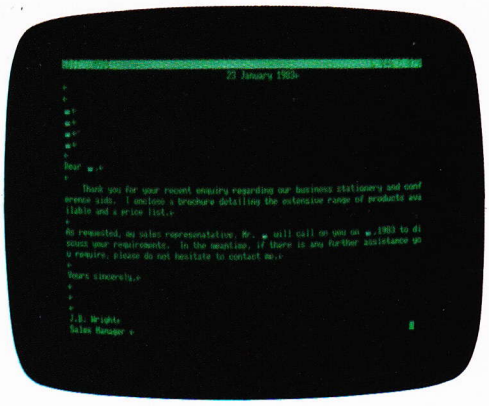
More and more businesses are recognizing the role microcomputers play in the office. The Commodore 700 series computers have the flexibility to fill a wide number of roles. Unlike many shared large computers they offer the advantage of individual control over priorities and options and almost instantaneous response times.

A wide range of software, some incorporating the capability of performing several tasks simultaneously, have been developed for the 700 computers. From integrated accounting to fluid mechanics, from hotel billing to tachograph analysis, from replacement window manufacture to dairy farm management, there is Commodore approved software to meet your requirements.

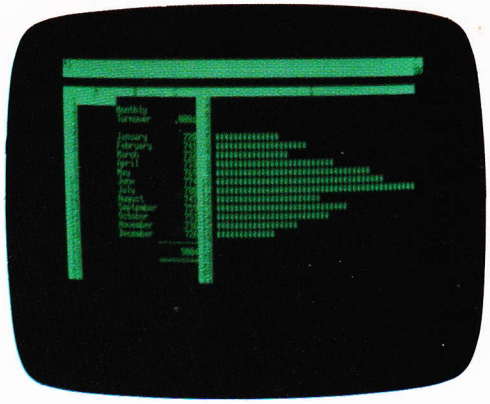
If access to shared information is required, several Commodore 700s can be linked to a single storage device such as a hard disk. The computers communicate with each other via local area networks or over the phone lines, for example, to transmit "electronic mail." Confidential data, such as financial information can be sent coded and then decoded by the receiving computer. The 700 series can communicate not only with other Commodore computers but, with the appropriate software, they can exchange information with computers of any type, large or small. They can even act as terminals for larger computers, whilst retaining the ability to perform tasks locally. For example, a Commodore 700 can be used as a stand-alone computer for word processing, to write memos and letters. The same computer could act as a terminal for a main-frame computer to enter regional sales figures in order to update company sales statistics daily. The records on the main frame computer could then be accessed by all regional terminals to determine stock levels and availability of goods.

One of the reasons the 700 series computers are able to perform such a wide variety of tasks is the extensive range of hardware options that are offered. The value of the computer to your business is in the tasks it performs and the versatility provided by the 700 series computer is made possible by the outstanding hardware features. A range of hardware options is available to ensure that the 700 is suitable for all types of business. These include integral or separate monitor, integral disk drives and a second processor option.

700 WITHOUT INTEGRAL MONITOR



WORD PROCESSING



FINANCIAL MODELLING

**Memory** The 700 series is available with either 128K or 256K RAM as standard. This is expandable to 896K. The RAM is configured in 64K banks. One entire bank can be used for BASIC programs with the remainder being used for data storage. There is no such restriction on machine code programs. Bank switching is handled automatically by the CPU.

**Display** The specially designed characters of the 700 are in a 9 by 14 pixel format. This makes them easier to read since they more closely resemble printed typefaces. The display is 80 columns by 25 lines. The optional integral screen has green phosphor characters on a black background. High retentivity and an anti-glare surface add to the ease of reading. The screen can be swivelled from side to side and tilted up and down for more comfortable viewing.

**Operating systems** In addition to the standard Commodore operating system, with the optional second processor, you can run CP/M (with Z80) concurrent CP/M® (8088) or MS-DOS® (8088).

**Second processor option** The 700 series computers use a 6509 microprocessor. This chip has been designed so that it can run concurrently with a second processor (the Z80 or 8088), if you wish. The 6509 handles the I/O, screen and keyboard responses, etc. The second processor does the operational computing. The combination results in high-speed processing. In addition, the second processor allows for other operating systems such as CP/M® and MS-DOS.® These in turn mean other soft loaded languages such as FORTRAN and COBOL are available thus expanding even further the range of software for this computer.

# THE COMMODORE 700 SERIES GIVES YOU EVERYTHING YOU LOOK FOR IN A BUSINESS MICROCOMPUTER

The list of features is long and the options available mean that you can choose the precise model for your needs. The following are the main points and more details are below:–

- ☐ 128K OR 256K RAM STANDARD
- ☐ EXPANDABLE TO 896K
- ☐ DUAL PROCESSOR (8088 OR Z80) OPTION
- ☐ SECOND PROCESSOR RUNS CONCURRENTLY
- ☐ OPTIONAL ALTERNATE OPERATING SYSTEMS SUCH AS CP/M® AND MS-DOS®

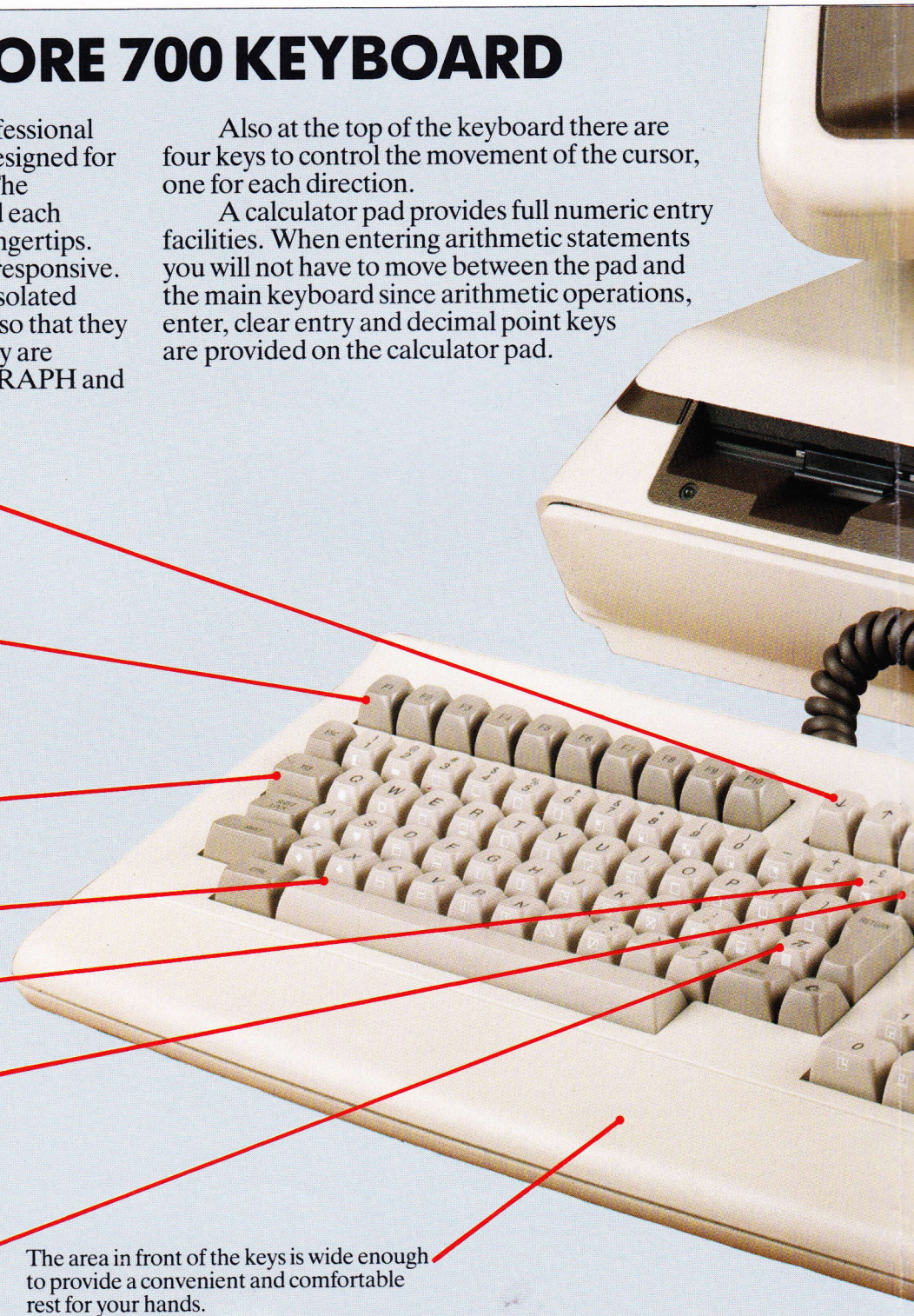
## THE COMMODORE 700 KEYBOARD

The Commodore 700 series has a professional QWERTY keyboard that has been designed for easy, comfortable and accurate use. The keyboard profile is slightly curved and each individual key top is shaped to your fingertips. The action of the keys is positive and responsive.

Four critical operation keys are isolated above the remainder of the keyboard so that they will not be pressed inadvertently. They are CLR/HOME, OFF/RVS, NORM/GRAPH and RUN/STOP.

Also at the top of the keyboard there are four keys to control the movement of the cursor, one for each direction.

A calculator pad provides full numeric entry facilities. When entering arithmetic statements you will not have to move between the pad and the main keyboard since arithmetic operations, enter, clear entry and decimal point keys are provided on the calculator pad.



The cursor control keys allow you to easily move the cursor to any position on the screen. Note that there is a separate key for each direction of movement.

Ten function keys are provided for "shorthand" entry of up to twenty special commands within a program. The programmer defines them with BASIC or machine code routines. They can assume tasks as varied as instituting data sorting or selecting program options.

This key sets or releases tabulation positions when used with the SHIFT key. Pressing this key alone will move the cursor to previously set tab positions.

The 64 character PET graphics set is available directly from the keyboard.

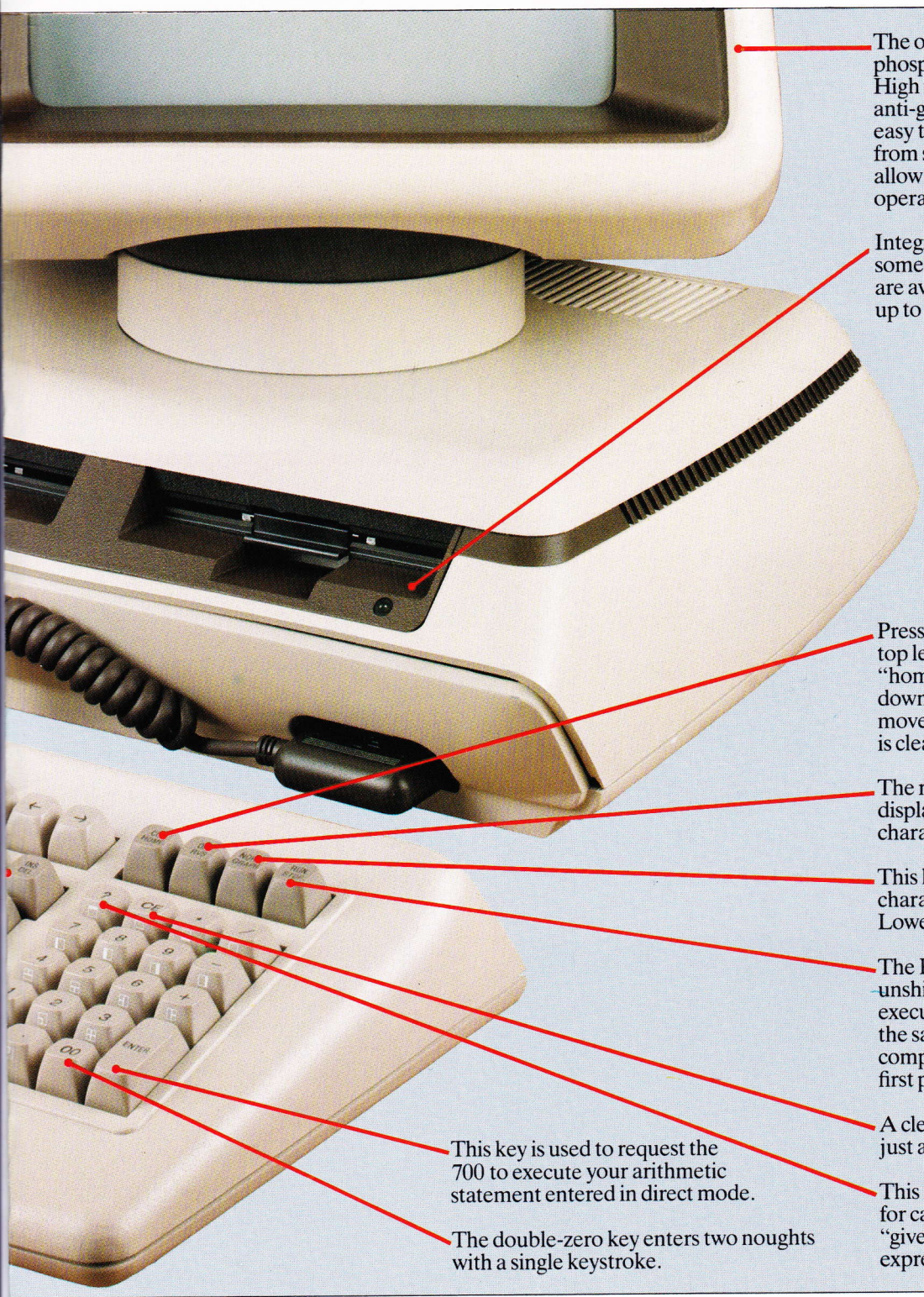
A £ sign is included on the keyboard. The sign can be printed on your Commodore printer.

The insert/delete key speeds up the editing of information entered from the keyboard. Pressing this key will remove mistyped characters, whilst holding down the SHIFT key and pressing INST/DEL will "open up" the display so that you have room to insert characters.

The value of the geometric symbol $\pi$ is available from the keyboard for use in calculations directly or within programs.

The area in front of the keys is wide enough to provide a convenient and comfortable rest for your hands.

- ☐ FULLY IMPLEMENTED IEEE-488 INTERFACE
- ☐ BUILT-IN RS232C INTERFACE
- ☐ FULLY PROGRAMMABLE EIGHT BIT PARALLEL PORT
- ☐ OPTIONAL BUILT-IN DIRECT MEMORY ACCESS DISK DRIVES
- ☐ NETWORKING CAPABILITY
- ☐ BUILT-IN CLOCK 2 MHZ
- ☐ MULTIPLE SOFT LOADED LANGUAGE CAPABILITY
- ☐ ACCEPTS PLUG-IN ROM CARTRIDGES
- ☐ 80 COLUMN x 25 ROW DISPLAY
- ☐ OPTIONAL GREEN PHOSPHOR TILT AND SWIVEL INTEGRAL SCREEN
- ☐ DETACHABLE KEYBOARD ON MODELS WITH SCREEN
- ☐ SCULPTURED KEYBOARD
- ☐ ISOLATED COMPLETE CALCULATOR PAD
- ☐ TEN PROGRAMMABLE FUNCTION KEYS
- ☐ SOUND SYNTHESIZER



The optional integral monitor has a green phosphor display on a black background. High retentivity of characters and an anti-glare surface ensure that the screen is easy to read. The screen can be swivelled from side to side and tilted up and down to allow greater comfort and flexibility for the operator.

Integral DMA disk drives are an option on some models. Both single and dual drives are available with a maximum capacity of up to 680K.

Press this key and the cursor moves to the top left-hand corner of the screen (the "home" position). If the SHIFT is held down and this key is pressed, the cursor still moves to the home position, but the screen is cleared.

The reverse key switches from standard display to "negative image," i.e. black characters on a green background.

This key is used to change between the two character sets available on the 700: Upper/ Lower case and Graphics/Upper Case.

The Run/Stop key has two functions. When unshifted it is used to stop a program that is executing. When the Run/Stop key is used at the same time as the SHIFT it will cause the computer to automatically load and run the first program from diskette.

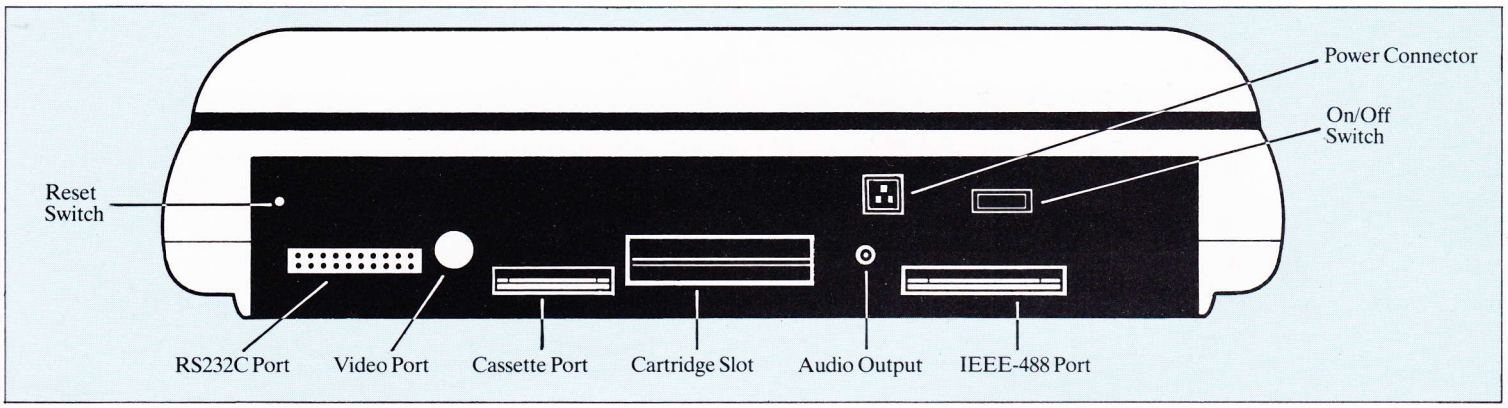
A clear-entry key aborts a numeric entry just as on a calculator.

This key simplifies the use of the computer for calculations in direct mode. It signifies "give me the answer to the arithmetic expression which follows."

This key is used to request the 700 to execute your arithmetic statement entered in direct mode.

The double-zero key enters two noughts with a single keystroke.

# EXPANSION AND PERIPHERALS




**Programming** An extended Commodore BASIC instruction set is supplied as standard on the 700 series computers. Additional commands include KEY to assign operations to function keys, BANK to select a specific 64K block, BLOAD/BSAVE which load or save a specific bank. The PETSPEED compiler is available for this BASIC as will be other soft loaded languages including UCSD Pascal, FORTH, Prolog, LOGO and others. The 6509 instruction set for assembly language programming is a slight modification of the 6502 instructions. Two changed commands enable the addressing of the RAM beyond the first bank. The instructions are LDA (label), Y and STA (label), Y.

**Communications** The 700 series has a built-in capacity for connecting to local area networking. This will allow for shared peripherals such as hard disks and letter-quality printers. Remote data capture with central processing is also available through this system.
The computer can communicate over the telephone lines using a modem. It is easy to program the computer to communicate with other 700s, other Commodore computers and/or a wide variety of computers of many types, both large and small. Electronic mail is possible with either the telephone link or local area networking. The choice will of course, depend on the distance you wish to transmit. Within the building sending is done over the network, but using the phone your message could be delivered anywhere in the world.

## COMMODORE DISK UNITS

(all with built-in IEEE – 488 interfaces)

| TYPE | NO. OF DRIVES | STORAGE CAPACITY |
|---|---|---|
| 5¼ inch diskette | 1 | 164.5K |
| 5¼ inch diskette | 2 | 329K |
| 5¼ inch diskette | 2 | 1018K |
| 5¼ inch diskette | 2 | 2050K |
| 5¼ inch Winchester | 1 | 5000K |
| 5¼ inch Winchester | 1 | 7500K |

## COMMODORE PRINTERS

(all with built-in IEEE – 488 interfaces)

| TYPE | SPEED | PAPER: MAX. WIDTH | PAPER: TYPE |
|---|---|---|---|
| Dot-Matrix | 60 CPS Bi-directional | 9½ inch | Continuous form |
| Dot-Matrix | 150 CPS Bi-directional | 14⅞ inch | Continuous form Single sheets |
| 'Daisy Wheel' | 40 CPS Bi-directional | 14⅞ inch | Continuous form Single sheets |

Full specification available on request.
Subject to change.

**Sound** A special SID (sound interface device) chip in the 700 series enables you to produce hifi-quality music or sound effects from your computer. Three separate voices of nine octaves each can be played separately, in unison or in harmony. By specifying the tonal quality, most traditional instruments can be simulated.

**Interfaces** The interface options on the 700 series are numerous thus making it easy to interface this computer to many peripherals and instruments. In addition to the IEEE-488 and RS232C connections, a user port (8-bit parallel), cassette port, cartridge port and video/audio output port are provided. There is also an internal DMA bus and the second processor connector.

**Peripherals** A high quality monitor, for use with 700 series computers without an integral monitor, is available from Commodore. A full range of other Commodore systems peripherals may also be connected directly to the 700 including both single and dual disk drives. Commodore hard disks and printers (both dot matrix and daisy wheel) may be used. Plotters, lightpens, etc are available as well. The range of interface parts means that the right hardware for your application is easily available and at the right price.

But the 700 series computers are more than just "pretty pictures." The large memory capacity (up to 896K), second processor option, interfacing options and 2MHz clock incorporate the latest microcomputer technology in this business computer. One would expect such a progressive design from Commodore, the market leader in business microcomputers. Their research and development are extensive, in keeping with their standing as a world leader in the electronics industry.

But the area that makes the 700 really stand out from the others is the range of established business software available. Wordprocessing, accounting, financial planning, spread sheet calculating, and many other programs with brand names long associated with Commodore, have been enhanced to take advantage of the features of the 700 computers. Many specialist programs have also been developed.

The 700 is available in a range of models and options enabling you to select the microcomputer that is exactly right for your needs. Your Commodore dealer, who is a trained professional, can help you make the selection to change your business for the better.

## FINANCIAL MANAGEMENT

In any business, profit, cash flow and interest payments have to be managed efficiently and accurately to ensure the success of the business.

The Commodore 700 series computers have a range of software programs that combine thorough accounting procedure with speed, accuracy and convenience. There are fully integrated accounting suites as well as simple single ledger systems. The operator can still make a mistake, but the computer can 'trace back' all of the steps so that the mistake can be found and rectified.

Stock control is also available on the Commodore 700. The benefits of a stock control package are numerous. Minimum stock levels, re-order quantities and suppliers details can all be accessed with ease. The facility to calculate the value of goods in stock at any time is also a valuable asset.

The features of a payroll system on the 700 include not only the printing of payslips, but extensive record and reporting facilities. Departmental analyses, period totals for tax and national insurance and automatic printing of year-end forms are among the many options available.

## MANAGEMENT PLANNING

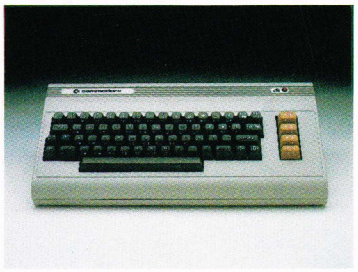
Planning is a key factor in business. In today's world planning can be particularly complex because so many factors influence the operation of the business. What is more, many of these variables are outside the control of the business. There are programs on the Commodore 700 which enable you to set up actual or theoretical situations, and then by changing the variables one by one, or several simultaneously, you can see the effects that these changes will have. With the 700, alternative calculations can be explored in minutes rather than the days it could take using manual methods.

Another aspect of planning is scheduling all the activities that make up a particular project. Delays at certain stages, resulting in an overall delay in the project, can mean cost penalties or lost orders. The Commodore 700 can highlight areas of risk so that you are constantly aware of timing constraints and therefore help you to meet your targets.

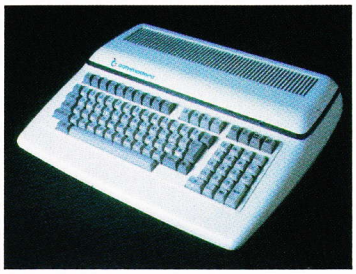
## —AND MANY SPECIALIST AREAS

Application programs for the 700 series computers are not limited to general purpose software. Many highly specialised packages are available as well. These include special application areas such as planned maintenance, job costing, production planning, etc. Packages designed for use in special professions are also available. Included are estate agents, accountants, engineers, solicitors, and contractors. Retailers, newsagents, hoteliers and farmers can all have specialist packages so that the Commodore 700 can be used as a tool to help them operate more efficiently.

The Commodore 700 is only one of a full range of microcomputers from Commodore. Ask your dealer to tell you about the Commodore 64 Personal computer and the 500 series Professional/Scientific computer.



COMMODORE 64



500 SERIES

## DATA

**Microprocessor** MOS 6509 standard on all machines.
Second processor option on all models.

**Numeric Data Format** Floating point Exponent 2 digit
Mantissa 9 digit $-39 \leq E \leq 38$

**System Memory Area** 28K ROM 3K RAM

**User Area** Either 64K RAM for BASIC programs
64K – 192K RAM for data and variable storage
or 128K – 256K RAM for machine code programs

**Keyboard**
Qwerty layout – 94 keys 4 separate cursor keys
Separate numeric pad Graphic keys
10 function keys

**Integral Drives**
Certain models have integral D.M.A. disk drives(s) with a capacity of up to 680K

**Display**
80 column, 25 row, green phosphor integral VDU

**Sound**
3 voices, 9 octaves each. 4 waveforms: sawtooth, triangle, variable pulse, noise.
Programmable ADSR (attack, decay, sustain, release) generator.
Programmable filter selectable for each voice: low pass, band pass, high pass or notch outputs. Variable resonance. Master volume control.

**Input/Output**
RS232C Cassette port Memory bus
IEEE-488 Second processor
8 bit parallel

**Language** Built in BASIC interpreter
**Variables** Real, Integer, String
**Array Variables** Real, Integer, String (single and multi-dimensional)

**System Commands**
LOAD, SAVE, RUN, DLOAD, DSAVE, BLOAD, BSAVE, STOP, END, CONT, PEEK, POKE, SYS, WAIT, USR, BANK

**Editing & Formatting Commands**
LIST, REM, TAB, SPC, POS, CLR/HOME, INST, DEL, CTRL, CRSR Controls, DELETE, PUDEF, PRINT USING

**Array & String Commands**
DIM, LEN, STR$, VAL, CHR$, ASC, LEFT$, RIGHT$, MID$, INSTRING

**Input/Output Commands**
INPUT, GET, PRINT, DATA, READ, RESTORE, RESTORE-ln

**Program Flow**
GOTO, IF . . . THEN, IF . . . THEN . . . ELSE, FOR . . . TO . . . NEXT, GOSUB, RETURN, ON-GOTO, ON-GOSUB, DISPOSE, TRAP, RESUME, ERR$, EL, ER

**File Commands**
OPEN, CLOSE, DOPEN, DCLOSE, RECORD#, GET#, INPUT#, PRINT#, PRINT# . . . USING

**Algebraic Operators**
=, +, −, *, /, ↑, < >, <, >, <=, >=

**Logical Operators**
AND, OR, NOT

**General Specification**
Physical dimension – Monitor unit: 460mm (W) x 350mm (D) x 460mm (H)
Keyboard: 450mm (W) x 245mm (D)
Power source: 240V AC mains adaptor

CP/M® IS A REGISTERED TRADE MARK OF DIGITAL RESEARCH, INC. MS-DOS® IS A REGISTERED TRADE MARK OF MICROSOFT INC.

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